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ABSTRACT

This study investigates the reactive effects of observers on interactions between teachers (undergraduates and mothers) and toddlers in a preventive educational program. Findings indicate that the presence of an observer differentially affects interactional patterns in the home. More specifically, undergraduates and toddlers are relatively unaffected by an observer, whereas mothers evidence dramatic reactive effects. (Author)

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Observer Reactivity in an Educational Setting

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Abstract

The present study investigated the reactive effects of observers on interactions between teachers (undergraduates and mothers) and toddlers in a preventive educational program. Findings indicated that the presence of an observer differentially affected interactional patterns in the home. More specifically, undergraduates and toddlers were relatively unaffected by an observer, whereas dramatic reactive effects were noted with mothers.

Observer Reactivity in an Educational Setting

Behavioral investigators have become increasingly concerned with the effect an observer's presence exerts on those being observed. If subjects' observed behaviors differ from their unobserved behaviors, these reactive effects potentially restrict a study's generalizations.

Several studies have indicated various groups of subjects are differentially susceptible to reactive effects. Barker and Wright (1955); Martin, Gelfand, and Hartmann (1971); Patterson and Cobb (1971); and Patterson and Harris (1968) have found minimal reactivity with children. Discrepant findings have emerged, however, from studies involving adults; some identifying reactive effects (Bechtel, 1967; Roberts & Renzaglia, 1965), others finding little reactivity (Bales, 1950; Purcell & Brady, 1965). Unfortunately, methodological confounds have plagued many of the above studies (Johnson & Bolstad, 1973). At present, a need exists for well-designed naturalistic studies to uncover prospective reasons for differential reactivity of various subject groups.

The present study investigated the reactive effects of an observer during teaching sessions in a home-based educational program. The differential reactivity of undergraduate-child and parent-child interactions were evaluated.

Method

During routine well-baby examinations at Westside Health Services, a health care facility in Rochester, New York, thirty-seven economically

disadvantaged children were identified by doctors, family health assistants, and public health nurses as evidencing early developmental lags in social and verbal areas. Nine of these children, aged 12-24 months, participated in a preventive educational program. This intervention was part of a six year ongoing research project, described elsewhere (Jason, in press; Jason, 1976; Jason & Carter, 1975; Jason & Kimbrough, 1974). Seven of these nine children were girls; two were boys; and eight were black and one was white. Three families had members with unskilled jobs, the rest were unemployed. Each home had an average of six family members and the mother's mean educational level was slightly less than tenth grade.

The educational program used trained University of Rochester undergraduates, who visited homes of program children twice weekly for fourteen weeks. The behavioral sessions, which lasted approximately 30 minutes, featured a hierarchical series of lessons designed to develop positive educational and behavioral skills in target youngsters. Parents were encouraged to participate in sessions with instructions and modeling used to explain the rationale for lessons and to show parents how to administer lessons.

While an undergraduate teacher or mother administered lessons to a target youngster, a rater filled out the Daily Behavior Form. At the top of this form were Motor (M) and Verbal (V) requests and a series of empty boxes below each request. Requests were placed on the form prior to session onset. Within 15 seconds after each adult request,

the rater placed a (+) in the box below if the child correctly responded, a (p) if the child emitted an approximation to the correct behavior, and a (-) if the child incorrectly responded or did not respond. Two judges obtained an average reliability of 86% using this observational format during six sessions. Children's compliance to M and V requests was determined by summing all + and p responses and dividing by the total number of requests and multiplying by 100. This procedure was carried out separately for both M and V requests.

While the same teacher and rater entered each child's home throughout the intervention, at three equally spaced time points a second rater entered homes, observed and recorded interactions, and did not talk to any family members. The second raters were also University of Rochester undergraduates. Family members were informed that these second raters were collecting data to better understand the intervention. Observer reactivity was assessed by determining whether children's M and V compliance changed in the presence of the second rater.

Results and Discussion

When undergraduates [illegible] teaching lessons in the presence of the second rater, [illegible] compliance to motor requests dropped from 79% to 78% (t = .27) and verbal compliance from 65% to 58% (t = 1.37). The second rater's presence did not significantly change the mean number of undergraduate motor (increasing from 45.1 to 48.7, t = 1.34) or verbal requests (decreasing from 31.3 to 30.0,

t = .48). When mothers were administering lessons, in the presence of the second observer, motor and verbal compliance declined significantly, from 65% to 12% (t = 4.03, $p < .01$) and 40% to 11% (t = 3.38, $p < .01$) respectively; the mean number of parent verbal requests decreased significantly, from 7.6 to 1.3 (t = 3.16, $p < .01$) and motor requests decreased directionally, from 8.0 to 3.7 (t = 1.55).

Thus when undergraduates administered lessons in the presence of a second rater, children's compliance rates and mean requests administered were relatively unchanged, neither toddlers nor undergraduates being distracted by the second observer. This finding supports results from other studies indicating younger subjects are less self-conscious when observed than are older ones. Apparently, undergraduates, in the present study, having already been extensively observed throughout training and program sessions, had come to recognize the importance of feedback from observations, and consequently were not affected by the presence of the second rater.

When observed by the second rater, mothers administered fewer requests and were less effective in eliciting compliance from their children. Reactive effects, therefore, were evident only when mothers served as teachers. The mothers had generally developed positive relationships with the initial undergraduate observers and teachers. However, a trusting relationships had never been established with the second observer, perhaps causing mothers to be more self-conscious in their presence.

It is possible that the initial rater exerted reactive effects on undergraduates, mothers and children. Even if this were true, additional reactive effects in the presence of the second observer were evident primarily with mothers.

References

Bales, D. F. Interaction process analysis. Cambridge: Addison-Wesley, 1950.

Barker, R. G., & Wright, H. F. Midwest and its children: The psychological ecology of an American town. New York: Row, Peterson, 1955.

Bechtel, R. B. The study of man: Human movement and architecture. Transaction, 1967, 4, 53-56.

Jason, L. A. Utilizing undergraduates in remediating developmental lags of economically disadvantaged preschoolers. Paper presented at the meeting of the Association for the Advancement of Behavior Therapy, New York, December, 1976.

Jason, L. A. A behavioral approach in enhancing disadvantaged children's intellectual development. American Journal of Community Psychology, in press.

Jason, L. A., & Carter, B. Paraprofessionals providing behavioral techniques to families of disadvantaged toddlers. The Slow Learning Child, 1975, 22, 153-158.

Jason, L. A., & Kimbrough, C. A preventive educational program for young economically disadvantaged children. Journal of Community Psychology, 1974, 2, 134-139.

Johnson, S. M., & Bolstad, O. D. Methodological issues in naturalistic observation: Some problems and solutions for field research. In L. A. Hamerlynck, L. C. Handy, & E. J. Mash (Eds.), Behavior change: Methodology, concepts, and practice. Champaign, Il.: Research Press, 1973.

Martin, M. F., Gelfand, D. M., & Hartmann, D. P. Effects of adult and peer observers on boys' and girls' responses to an aggressive model. Child Development, 1971, 42, 1271-1275.

Patterson, G. R., & Cobb, J. A. A dyadic analysis of "aggressive" behaviors. In J. P. Hill (Ed.), Proceedings of the Fifth Annual Minnesota Symposia on Child Psychology, Vol. V., Minneapolis: University of Minnesota, 1971.

Patterson, G. R., & Harris, A. Some methodological considerations for observation procedures. Paper presented at the meeting of the American Psychological Association, San Francisco, September, 1968.

Purcell, K., & Brady, K. Adaptation to the invasion of privacy: Monitoring behavior with miniature radio transmitter. Merrill-Palmer Quarterly, 1965, 12, 242-254.

Roberts, R. R., & Renzaglia, G. A. The influence of tape recording on counseling. Journal of Counseling Psychology, 1965, 12, 10-16.

Footnote

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